



Fermilab

**Technical Support Section*****Handling and Processing of New Solvents,  
Waste Solvents, and Solvent-laden Paper Towels***

Approved: \_\_\_\_\_

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Date: 2-7-95**Purpose**

The document describes Technical Support Section policy and procedures for the proper handling and disposal of solvents and paper towels or other similar solvent-laden items. This document is intended as guidance for TSS personnel and does not replace or supercede requirements of the Fermilab ES&H Manual.

**Background**

Solvents are used in production activities throughout the Technical Support Section. When a solvent is used and is determined by the user to no longer be of value, the solvent becomes waste and must be processed accordingly, with the user being defined as the waste generator. Waste minimization efforts have effectively reduced the types and quantities of solvents used to very small values. At the present time, alcohol and acetone continue to be solvents used for various cleaning operations. Alcohol and acetone are defined as regulated materials by 40 CFR. Fermilab procedures define spent alcohol as special waste and spent acetone as hazardous waste. The result is that these materials must be disposed of as regulated waste following established Laboratory procedures.

In line with TSS waste minimization efforts, it has been realized that some used solvents may be suitable for uses that may not require as pure a product. For instance, while used ethyl alcohol may be unsuitable for operations with stringent cleanliness requirements, it may be perfectly acceptable for cleaning tooling, laminations, or other such items. Operating Groups are encouraged to review the use and practicality of using "used" solvents to further minimize the amount of waste material produced from TSS operations.

## **Definitions**

*Solvent-laden paper towels* - Paper towels and similar combustible materials that have come into contact with liquids declared to be regulated materials.

*Ignitable solvents* - Solvents having a flash point < 140°F. Also considered flammable.

## **Handling of New Solvents**

The handling and storage of new ignitable solvents shall follow industry standards for flammable and combustible liquids as specified and regulated by OSHA 29 CFR 1910.106. New product shall be kept in approved metal "flammables cabinets" except when in use.

## **Processing of Used Solvents**

As part of the Technical Support Section waste minimization effort, the suitability of using used solvents in certain applications, such as coarse cleaning operations, has been considered. After some review, it was concluded that the present amount of used solvent generated is quite small and the effort of establishing a Section-wide program to store and dispense used solvents not warranted.

Where possible, TSS Operating Groups are encouraged to seek alternatives to solvents classified as regulated materials, thereby reducing the amount of regulated waste generated. Each Operating Group is also encouraged to assess whether waste solvents can be re-used in less-stringent or coarse cleaning activities associated with their operation, also minimizing the amount of material processed as regulated waste. Judgements as to the usefulness and practicality of storing and utilizing used solvents rests with each Operating Group Leader.

## **Disposal of Used Paper Towels or Rags**

Paper towels and/or rags that have come into contact with alcohol or other hazardous materials are considered combustible regulated waste once their usefulness is expired. For the Technical Support Section, a solvent-laden paper towel or rag shall be considered regulated waste immediately upon completion of its initial use and shall be processed accordingly.

OSHA 1910.106(e)(9)(iii) requires that combustible waste material and residues in a building be kept to a minimum, stored in covered metal receptacles, and be disposed of daily. Solvent-laden paper towels, rags, and other such combustible materials in TSS facilities shall be kept inside metal receptacles with self-closing lids. Receptacles shall be emptied daily, with the principal waste generator retaining principal responsibility for this

activity. Operating groups may at their discretion designate an individual as the principal waste generator and assign the responsibility for the daily emptying of metal receptacles to this individual. Such assignments must be clearly defined and understood.

Hazardous waste material shall be stored in Satellite Accumulation Areas (SAAs) until such time they are picked up and processed for off-site shipment.